

Abstract**THE MECHANISM OF THE EFFECTS OF *MONASCUS jmbA* RICE ON INCREASED PLATELET COUNT IN WISTAR RATS INFECTED WITH DENGUE VIRUS SEROTYPE 3****Erwin Astha Triyono**

Objective: to elucidate the mechanism of the effects of *Monascus jmbA* rice (MJR) on increased levels of platelets in DVI serotype 3 through changes in IL-3, IL-6, IL-11 and TNF- α .

Material and methods: It was a true experimental laboratory study using the randomized post-test only control group design. The study compared between groups of Wistar rats were being treated only with group IVD Wistar rats who experienced treatment followed by administration of MJR as well as groups of Wistar rats without any treatment as a control group.

Result: The increase in platelet count in the group treated with DVI + MJR was higher than that treated with only DVI and the difference was a significant ($p < 0.05$). Increased levels of TNF- α in the group treated with DVI + MJR were lower than that treated with only DVI and the difference was a significant ($p < 0.05$). The significance levels of the causal relationship of TNF- α with IL-6, TNF- α with IL-11 and IL-6 with platelets were 0.044 ($p < 0.05$), 0.029 ($p < 0.05$) and 0.041 ($p < 0.05$), respectively.

Conclusion: *Monascus jmbA* rice was shown to be capable of increasing platelet count through the role of TNF- α and IL-6 in Wistar rats infected with Dengue virus serotype 3.

Keyword: *Monascus jmbA* rice, platelets, Dengue virus serotype 3